

t57_matrix_6 (TMHHK- FZFqJKe4C5S5dfnzQandYtex7NGVGT)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v4_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k4_matrix_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
& (\neg v6_struct_0 X1) \wedge (v13_algstr_0 X1) \wedge (v33_algstr_0 X1) \wedge \\
& (v3_group_1 X1) \wedge (v5_group_1 X1) \wedge (v2_rlvect_1 X1) \wedge (v3_rlvect_1 \\
& X1) \wedge (v4_rlvect_1 X1) \wedge (v4_vectsp_1 X1) \wedge (v5_vectsp_1 X1) \wedge \\
& (l6_algstr_0 X1)))))) \Rightarrow (\forall X2.(m1_matrix_1 X2 (u1_struct_0 \\
& X1) X0 X0) \Rightarrow (\forall X3.(m1_matrix_1 X3 (u1_struct_0 X1) X0 X0) \Rightarrow \\
& ((v4_matrix_6 X2 X0 X1) \wedge (v4_matrix_6 X3 X0 X1)) \Rightarrow ((r1_xxreal_0 \\
& X0 k6_numbers) \vee (v4_matrix_6 (k4_matrix_6 X0 X1 X2 X3) X0 X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.((v7_ordinal1 X0) \wedge \\
& (((\neg v2_struct_0 X1) \wedge (\neg v6_struct_0 X1) \wedge (v13_algstr_0 X1) \wedge \\
& (v33_algstr_0 X1) \wedge (v3_group_1 X1) \wedge (v5_group_1 X1) \wedge (v2_rlvect_1 \\
& X1) \wedge (v3_rlvect_1 X1) \wedge (v4_rlvect_1 X1) \wedge (v4_vectsp_1 X1) \wedge \\
& (v5_vectsp_1 X1) \wedge (l6_algstr_0 X1)))))) \wedge ((m1_matrix_1 \\
& X2 (u1_struct_0 X1) X0 X0) \wedge (m1_matrix_1 X3 (u1_struct_0 X1) X0 X0)) \Rightarrow \\
& (m1_matrix_1 (k4_matrix_6 X0 X1 X2 X3) (u1_struct_0 X1) X0 X0)
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\ & ((\neg v6_struct_0\ X1) \wedge (v13_algstr_0\ X1) \wedge (v33_algstr_0\ X1) \wedge \\ & (v3_group_1\ X1) \wedge (v5_group_1\ X1) \wedge (v2_rlvect_1\ X1) \wedge (v3_rlvect_1 \\ & X1) \wedge (v4_rlvect_1\ X1) \wedge (v4_vectsp_1\ X1) \wedge (v5_vectsp_1\ X1) \wedge \\ & (l6_algstr_0\ X1)))))) \Rightarrow (\forall X2.(m1_matrix_1\ X2\ (u1_struct_0 \\ & X1)\ X0\ X0) \Rightarrow (\forall X3.(m1_matrix_1\ X3\ (u1_struct_0\ X1)\ X0\ X0) \Rightarrow \\ & (\forall X4.(m1_matrix_1\ X4\ (u1_struct_0\ X1)\ X0\ X0) \Rightarrow (((v4_matrix_6 \\ & X2\ X0\ X1) \wedge (v4_matrix_6\ X3\ X0\ X1) \wedge (v4_matrix_6\ X4\ X0\ X1)) \Rightarrow ((r1_xxreal_0 \\ & X0\ k6_numbers) \vee (v4_matrix_6\ (k4_matrix_6\ X0\ X1\ (k4_matrix_6\ X0 \\ & X1\ X2\ X3)\ X4)\ X0\ X1)))))) \end{aligned}$$